| Index of Claims |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|
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| Application No.     | Applicant(s)  | _ |
|---------------------|---------------|---|
| 10/081,917          | CAIRNS ET AL. |   |
| Examiner            | Art Unit      | - |
| Jeanne A. Di Grazio | 2871          |   |

| √ | Rejected | _ | (Through numeral)<br>Cancelled |
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| N | Non-Elected  | Α | Appeal   |
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| Œ  | ō        |              |  |   |  |          |           |          |          |              |    | <u>ا</u> ا | 5        |         |          |           |          | - 1      |              |           |    | ш     | ō          |          |          |              | 1        |           | - [      | - 1      |          |          |
|  |          | _            | -  | 4   | _  | +        | +         | 4        | -        | - ::         | -  |            |          | -       | -        | -         | $\dashv$ |          | +            |           |    |       |            |          | -        | -            | $\dashv$ | $\dashv$  |          | -+       | -        | $\dashv$ |
| 1  | 1_       | =            | +  | +   | +  | +        | +         | +        |          | -            | :- |            | 2        |         | $\vdash$ | -         | $\dashv$ |          | ++           | $\dashv$  | ŀ  |       | 101<br>102 |          | -        | -            | $\dashv$ | $\dashv$  | $\dashv$ | ┰        |          | $\dashv$ |
| 2<br>3   | 2        | =            |  | +   | -  | +        | +         | +        | +        | - ::         | ŀ  |            | 3        | -       | Н        | $\dashv$  | -        | +        | +            | $\dashv$  |    |       | 103        | $\dashv$ | -        |              |          | $\dashv$  | ╌┤       | $\dashv$ | ┪        | $\dashv$ |
| <del>  3  </del>                                 | 3        | =            |  | +   | +  |          | +         |          | +        | - ::         | ÷  | -          | 4        | +       | -        |           | -+       | +        | +            | -         |    |       | 104        | Н        | -        | -            | $\dashv$ | $\dashv$  |          | -+       | $\dashv$ | $\dashv$ |
| 별  | 5        | =            |  | +   | +  | ┽        | ┿         | +        | +        | -            | ŀ  |            | 55       | +       | $\vdash$ | $\dashv$  | +        | +        | 1 1          | $\dashv$  | ŀ  |       | 105        |          | -        | -            | 一        | 1         | 一        | -        | -        | ᅱ        |
| 6  | 6        | =            | _  | +   | +  | ╁        | +         | +        | +        | $\dashv$     | 1  |            | 6        |         | $\vdash$ | $\neg$    | $\dashv$ | _        | 1-1          | $\dashv$  |    |       | 106        | Н        |          |              | 寸        | $\exists$ | $\dashv$ | $\dashv$ | _        | ᅱ        |
| <del>   4</del>                                  | 7        | =            | -  | +   | +  | +        | +         | 十        | +        | $\dashv$     | ŀ  |            | 7        | $\top$  | H        |           | _        |          | 11           | $\neg$    |    |       | 107        |          |          |              | T        |           |          | 一        | _        | $\neg$   |
| 8  | 8        | =            | <u> </u>   | 7   | +  | $\dashv$ | _         | _        | 1        |              | ŀ  |            | 8        | $\top$  | $\Box$   | $\neg$    |          |          | $\Box$       |           |    |       | 108        |          | $\Box$   | T            | T        | T         |          | T        |          | $\neg$   |
| a  | 9        | =            |  | 寸   | 十  | _        | 十         | $\neg$   |          |              | 1  |            | 9        |         | П        |           |          |          | 11           |           |    |       | 109        |          |          |              |          |           |          |          |          |          |
| 10   | 10       | =            |  | $\neg$  | $\neg$   | $\top$   | 7         | $\neg$   |          |              |    | E          | 0        |         |          |           |          |          |              |           |    |       | 110        |          |          |              |          |           |          |          |          |          |
| 11   | 11       | =            |  |   |  |          |           |          |          |              |    | $\epsilon$ | 51       |         |          |           |          |          |              |           |    |       | 111        |          |          |              |          |           |          |          | $\Box$   |          |
| 12   | 12       | =            |  |   | T  | I        |           |          |          |              | [  |            | 2        |         |          |           | $\Box$   |          | $\perp \Box$ |           |    |       | 112        | Ш        |          |              | ]        |           |          |          |          | Ц        |
| 13   | 13       | Ξ            |  | $\perp$   | $\perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$ |          |           |          |          | _            |    |            | 3        | $\perp$ | Ш        | $\sqcup$  | ļ        |          | 4-1          | _         |    |       | 113        | Ш        |          | _            | _        |           | ļ        | _        |          | _        |
| 141  | 14       | =            |  | $\perp$   |  |          | 1         | $\perp$  | $\perp$  | _ :          |    |            | 34       | $\perp$ | Ш        | $\sqcup$  | _        | _ _      | +            | _         |    |       | 114        |          |          | $\dashv$     | _        |           | _        | _        |          | _        |
| 15   | 15       | =            | $\sqcup$   | 4   | $\perp$  | _        | 4         | _        | $\bot$   | _            | ١  |            | 55       |         | $\vdash$ | <b> </b>  | _        | $\perp$  | 41           | _         |    |       | 115        | $\vdash$ |          | _            |          | -         | _        | $\dashv$ |          | $\dashv$ |
| 16   | 16       | Ξ            | $\sqcup$   | $\downarrow$                                      | $\perp$  |          | 4         | $\perp$  | $\perp$  | _            | 1  |            | 6        |         | $\vdash$ |           | _        | +        | -            | _         |    |       | 116        | Н        | $\dashv$ | _            | $\dashv$ | -         | $\dashv$ |          |          | $\dashv$ |
| 17 8 9 20 21 21 21 21 21 21 21 21 21 21 21 21 21 | 17       | =            | $\vdash$   | $\downarrow$                                      | +  |          | 4         | -        | +        |              | ١. |            | 37       | -       | +        | $\square$ | $\dashv$ | $\dashv$ | +            |           |    |       | 117<br>118 |          | $\vdash$ |              | $\dashv$ |           |          | $\dashv$ | _        | $\dashv$ |
| 18   | 18       | =            |  | +   | +  |          | +         | _        | +        |              |    |            | 88       | +       | -        | $\vdash$  | $\dashv$ |          | +            |           |    |       | 119        | -        | -        | $\dashv$     | $\vdash$ | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ |
| 19   | 19       | =            | <del>   -</del>                                  | +   | -+   | +        | +         | +        | -+       | -            |    |            | 69<br>70 |         | -        | -         | $\dashv$ |          | + -          | $\dashv$  |    |       | 120        |          | $\dashv$ |              | $\vdash$ | $\dashv$  | $\dashv$ | -        | $\dashv$ | $\dashv$ |
| 20   | 20       | =            | ├┼   | +   | -  | +        | +         | +        | -        | -            |    |            | 11       | +       |          | Н         | $\dashv$ | +-       | +-1          | -         |    |       | 121        | $\vdash$ | -        | $\dashv$     |          | $\dashv$  | $\dashv$ | -        | ᅱ        | $\dashv$ |
| 3  | 21<br>22 | =            | <del> </del> -                                   | +   | +  | +        | +         | +        | +        | - ::         |    |            | 2        | +       | $\vdash$ | $\vdash$  | -        | +        | ╁┪           | $\dashv$  |    |       | 122        |          | $\dashv$ | $\dashv$     | $\dashv$ | -         |          | $\dashv$ | _        | $\dashv$ |
| 1/2  | 23       | =            |  | $\dashv$  | <del>-</del>   |          | +         | +        | +        | - ::         |    |            | 73       |         | $\vdash$ |           | -        | $\neg$   | + 1          | -         |    |       | 123        | -        | $\dashv$ |              |          |           | $\neg$   | $\dashv$ | $\neg$   | $\neg$   |
| 4  | 24       | =            | ┝╾┼  | +   | +  | - -      | +         | +        | +        | -            |    |            | 74       |         | $\vdash$ | $\vdash$  | -        |          | $\pm$        | $\dashv$  |    |       | 124        |          |          |              |          |           | _        | $\dashv$ | $\neg$   | $\neg$   |
| 3  | 25       | =            | $\vdash$   | $\forall$   | $\dashv$   | -        | +         | $\top$   | ┪        | - :          |    |            | 75       |         | T        | $\vdash$  |          | T        | 11           | $\dashv$  |    |       | 125        |          | П        | 一            |          |           |          | $\neg$   | $\neg$   |          |
| 7  | 26       | =            | 1-1-   | 寸   | 十  | -+       | $\top$    | 十        | _        | -            |    |            | 76       | $\top$  |          |           |          |          | 17           |           |    |       | 126        |          |          |              |          |           |          | 丁        |          | $\neg$   |
| 24   | 27       | =            | $\vdash$   | 7   |  | _        | $\top$    | _        |          | 7            |    | 7          | 77       |         |          |           |          |          |              |           |    |       | 127        |          |          |              |          |           |          |          |          |          |
|  | 28       |              |  | $\top$  | $\top$   |          |           |          | T        |              |    |            | 78       |         |          |           |          |          |              |           |    |       | 128        |          |          |              |          |           |          |          |          |          |
|  | 29       | Ī            | ГТ   | 1   |  |          |           |          |          |              |    |            | 79       |         |          |           |          |          |              |           |    |       | 129        |          |          |              |          |           |          | $\perp$  |          | _        |
|  | 30       |              |  |   |  |          |           |          |          |              |    |            | 30       |         |          |           |          |          |              |           |    |       | 130        |          |          |              |          |           |          | _        |          | _        |
|  | 31       |              |  | $\perp$   |  |          | $\perp$   |          |          | _            |    |            | 31       |         |          |           |          |          | 4-4          |           |    |       | 131        |          |          |              |          |           |          | _        |          | 4        |
|  | 32       | L            | $\sqcup$   | _   | _  |          | 4         | _        |          | _            |    |            | 32       | $\bot$  |          | Ш         | _        | -        | 4-4          | _         |    |       | 132        | _        |          |              | _        | -         |          | _        |          | _        |
|  | 33       | ╙            | $\sqcup$   | 4   | _  | _        | 4         | _ _      | 4        | 4:           |    |            | 33       | _       | 1-       | $\sqcup$  |          | -        | +            | _         |    |       | 133        | _        | $\vdash$ | _            | _        |           | _        |          |          | $\dashv$ |
| $\vdash$   | 34       | ₩            | $\vdash \vdash$                                  | 4   | _  | +        | +         | +        | +        | 4            |    |            | 34       | _       | ⊢        | $\vdash$  |          |          | +            | $\dashv$  |    |       | 134<br>135 | $\vdash$ | $\vdash$ | -            | $\dashv$ |           | $\dashv$ | -        |          | $\dashv$ |
| $\longmapsto$                                    | 35       | <del> </del> | $\vdash$   | 4   | +  | +        | +         | -        | +        | -  :         |    |            | 35<br>36 |         | ╁        | $\vdash$  | $\vdash$ |          |              | $\dashv$  |    |       | 136        | H        | $\vdash$ | _            | $\vdash$ | -         | $\vdash$ | $\dashv$ | _        | $\dashv$ |
| $\vdash$   | 36<br>37 | $\vdash$     | $\vdash$   | +   | $\dashv$   |          | +         | +        | +        | - :          |    |            | 37       | +-      | +-       | $\vdash$  | $\vdash$ |          | +-           | $\dashv$  |    | _     | 137        |          | $\vdash$ | -            | $\vdash$ |           | $\vdash$ | -        | -        | $\dashv$ |
| $\vdash$   | 38       | $\vdash$     | <del>     </del>                                 | +   | -+   | $\dashv$ | +         | +        | +        | $\dashv$     |    |            | 38       | +       | $\vdash$ | Н         | $\dashv$ |          | +            | $\dashv$  |    |       | 138        |          | $\vdash$ |              | Н        |           |          | +        | -        | $\dashv$ |
| $\vdash \vdash \vdash$                           | 39       | -            | +  | $\dashv$  | $\dashv$   | +        | +         | $\dashv$ | +        | $\dashv$     |    |            | 39       | +       | +        | Н         | $\vdash$ | +        | +            | $\dashv$  |    |       | 139        | $\vdash$ | $\vdash$ |              | Н        | $\vdash$  | $\vdash$ | $\dashv$ |          | $\dashv$ |
| <del>                                     </del> | 40       | -            | ++   | +   | $\dashv$   | +        | +         | +        | $\dashv$ | - :          |    |            | 90       | - -     | +        | $\vdash$  | $\dashv$ | $\dashv$ | 1 1          | $\dashv$  |    |       | 140        | $\vdash$ | -        | $\dashv$     | Н        | $\dashv$  |          | _        | _        | $\dashv$ |
| ┝─┤  | 41       | $\vdash$     | <del>                                     </del> | +   | $\dashv$   | +        | +         | $\dashv$ | +        | $\dashv$     |    |            | 91       | +       | +-       | Н         | $\dashv$ | +        | 11           | $\square$ |    |       | 141        | $\vdash$ | Н        | $\vdash$     | Н        | Н         |          | $\neg$   | _        | $\neg$   |
|  | 42       | <del> </del> | $\vdash$   | $\dashv$  | $\dashv$   |          | +         | $\dashv$ | 十        | $\dashv$     |    |            | 92       | +       | T        | H         | $\dashv$ | $\dashv$ | 17           |           |    |       | 142        | $I^-$    | П        |              | П        | П         |          |          | $\neg$   | $\neg$   |
| $\vdash \vdash \vdash$                           | 43       | 1            | $\vdash$   | $\dashv$  | $\dashv$   | $\dashv$ | $\dagger$ | 十        | $\dashv$ | 7            |    |            | 93       | _       | T        | М         | $\dashv$ | $\top$   |              |           |    |       | 143        | Π        | П        |              |          |           |          |          |          |          |
|  | 44       | T            | $\sqcap$   | 7   | $\dashv$   | $\dashv$ | +         | 寸        | 十        | <b>-</b>  :: |    | 9          | 94       |         | T        |           |          |          |              |           |    |       | 144        |          |          |              |          |           |          |          |          |          |
|  | 45       | Т            |  | $\dashv$  | $\dashv$   | $\neg  $ | $\top$    | 1        |          |              |    | 9          | 95       |         |          |           |          |          |              |           |    |       | 145        |          |          |              |          |           |          |          |          |          |
|  | 46       |              |  | J   |  |          | $ lab{T}$ | Ⅱ        |          |              |    |            | 96       |         |          |           |          |          |              |           |    |       | 146        |          | Ш        |              |          |           |          |          |          | Ш        |
|  | 47       |              |  | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $\Box$   |          | $\perp$   |          |          | _]::         |    |            | 97       |         |          |           |          | I        |              |           |    |       | 147        |          | Ш        |              | <u> </u> | Ш         |          |          |          | Щ        |
|  | 48       |              | П  | $\Box$  | $\Box$   | _Ţ.      | Ţ         | $\perp$  | $\perp$  |              |    |            | 98       | $\bot$  | Ļ        |           |          | $\perp$  | $\perp$      |           |    |       | 148        | <u> </u> | Ш        |              |          |           |          | $\sqcup$ |          | Щ        |
| $\Box$   | 49       | <u> </u>     |  | $\perp$   | $\perp$  |          | $\perp$   | $\perp$  | $\perp$  | _[:          |    | !          | 99       | $\perp$ | 1_       |           | $\sqcup$ | $\perp$  | $\perp$      | Щ         |    |       | 149        | <u> </u> | Щ        | $oxed{\Box}$ | L-       | Щ.        |          | $\sqcup$ | _        | Щ        |
|  | 50       | <u> </u>     | Ш.   | $\perp$   |  |          | $\perp$   |          | _L       |              |    |            | 00       | _L_     |          |           | Ш        | L.       |              | الل       | -: | L     | 150        | <u> </u> |          |              | L        | Ш         | L        | Щ        |          | Ш        |